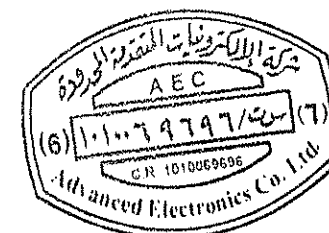


NOTES UNLESS OTHERWISE SPECIFIED:

1. THE TERMINATION RESISTOR MUST BE PRESENT IN EVERY PANEL BUT IT MUST BE CONNECTED TO XCOM11 BY SHORTING XCOM11:1, XCOM11:2, XCOM11:3 AND XCOM11:4.
2. VT IS THE VOLTAGE TRANSFORMER
3. CTs & VTs ARE TO BE CONNECTED TO THE METERS VIA FT-SWITCH
4. H1 IS ANTI-CONDENSATION HEATER TO BE CONNECTED TO 127/220VAC
5. USE GROUP MARKER FOR GROUP MARKING
6. USE FERRULING FOR CABLE MARKING
7. FOR EXTERNAL WIRING OF THE PANELS REFER CABLE SCHEDULING OF THE SUBSTATIONS & FOR TESTING FOLLOW THE TEST DOCUMENTS
8. NEUTRAL SHOULD NOT BE CONNECTED TO TH1 THERMOSTAT
9. CONNECTOR RESISTOR R4 BETWEEN TERMINALS 3 AND 4 OF XCOM1 AND GROUND TERMINAL 4 OF XCOM1 USING YELLOW GREEN WIRE.
10. ALL THE TERMINAL BLOCKS HAVING EXTERNAL WIRING CONNECTIONS LIKE VT.CT.AC/DC TERMINAL BLOCKS SHOULD HAVE WIRE CONNECTION ON THE SIDE OF TERMINAL BLOCK NOT CLOSE TO PANEL ACCESS DOOR
11. ALL THE FERRULES SHOULD BE OUTSIDE RACEWAY, NEAR CONNECTOR & EASILY READABLE WIHTOUT TURNING OR MOVING WIRES.
12. FOR CONNECTIONS/FERRULING PLEASE FOLLOW THE TABLE
13. FOR CONNECTIONS/FERRULING PLEASE FOLLOW THE TABLE ON SHEET 11
14. WHEN CONNECTING ELECTRICAL WIRES FOR THE RELAYS MAKE SURE TO CONNECT ON THE SIDE MARKED 'A' FOR ALL PIN NUMBERS
15. DC AUX.CONTACTS FOR MCB101 THRU MCB104 WITH RATING 130VDC 1A ARE DRY MECHANICAL ALARMS FOR DC MCB TRIP WITH 11 AS 'COM' & 12 AS 'NO'
16. TERMINAL 10 IN XC1 TO XC4 TO BE CLOSED IF CT CIRCUIT IS NOT EARTHED ANY OTHER PLACE

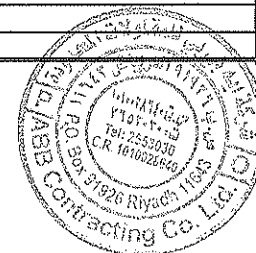


NOTES

LEGEND

REFERENCE DRAWINGS

DRAWING TITLE	DRAWING NO.
DRAWING CONTROL SHEET	CD-293969



AS-BUILT BY _____ DATE _____

REV. NO.	DATE	BY	DESCRIPTION	CHKD.	CERT.	APPR.
1	13/07	MRA	DETAIL DESIGN	MRA	AS	
0	12/01	MRA	BASE DESIGN	MRA	AS	

الشركة السعودية للكهرباء
Saudi Electricity Company

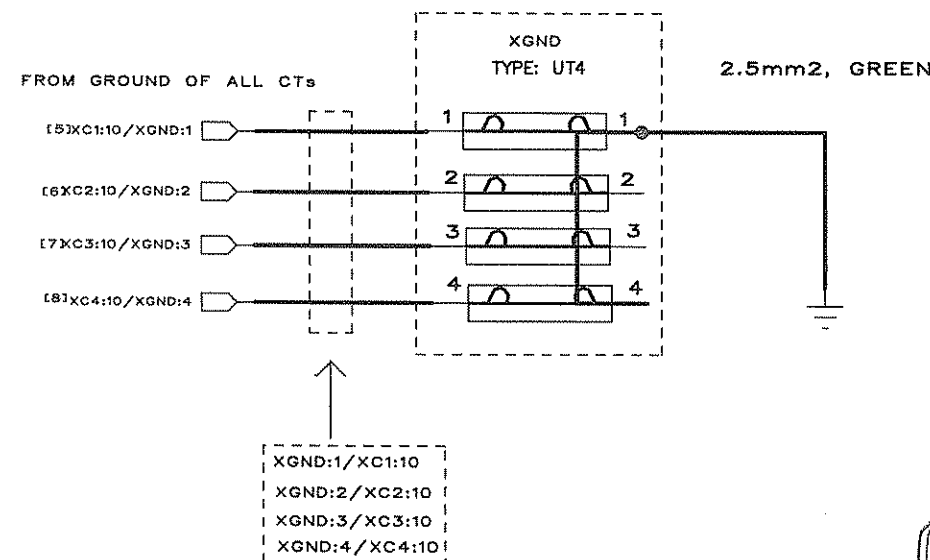
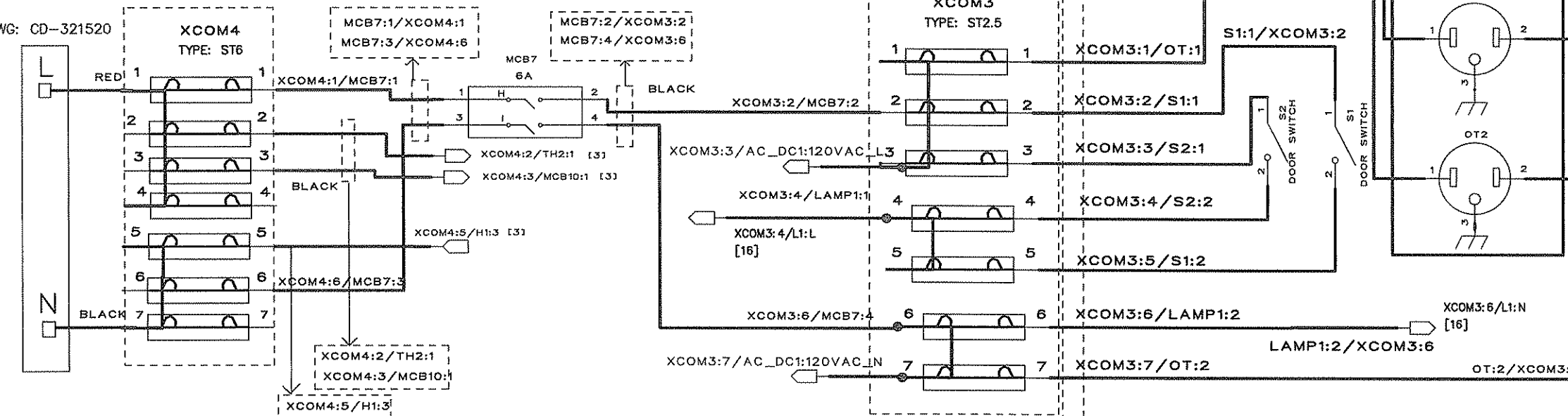
DRAWN BY: MRA CHECKED BY: AS SCALE: NONE
DATE STARTED: _____ DATE COMPLETED: _____
DEPT.: _____ ENG. DEPT.: _____

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR FOR ORDERING MATERIAL UNTIL CERTIFIED AND DATED
APPROVAL/CERTIFICATION INFORMATION
DOC NO. E-123456 REV. NO. 00

SCHEMATIC DIAGRAM, METERING PANEL WITH
4 RM WITHOUT RELAYS FOR AMR
S/S 8162

RIYADH SAUDI ARABIA

DWG: CD-321520



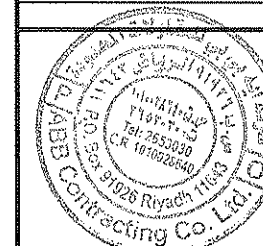
NOTES

LEGEND

S1, S2 - DOOR SWITCH FOR LAMP
OT1, OT2 - AC POWER OUTLET

REFERENCE DRAWINGS

DRAWING TITLE	DRAWING NO.
DRAWING CONTROL SHEET	CD-293969



REV. NO.	DATE	BY	DESCRIPTION	CHKD.	CERT.	APPD.
1	13/07	MRA	DETAIL DESIGN	MRA	AS	
0	12/01	MRA	BASE DESIGN	MRA	AS	

الشركة السعودية للكهرباء
Saudi Electricity Company

DRAWN BY: MRA CHECKED BY: AS SCALE: NONE
DATE STARTED: DATE COMPLETED: DPT. DEPT. ENG. DEPT.

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR FOR ORDERING MATERIAL UNLESS CERTIFIED AND DATED APPROVAL/CERTIFICATION INFORMATION DOC NO. E-123456 REV. NO. 00

127VAC AND GROUNDING
CONNECTIONS INSIDE PANEL
S/S 8162

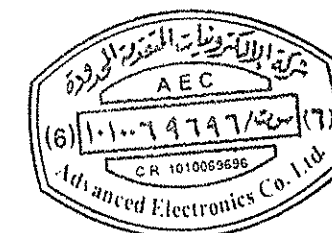
INDEX	PLANT NO.	DRAWING NUMBER	SHEET NO. REV. NO.
P	C469	CD-320883	02 OF 11 01

JOB ORDER NO.	PLANT NO.	DRAWING NUMBER	SHEET NO. REV. NO.
11131113/00	P	C469	CD-320883 02 OF 11 01

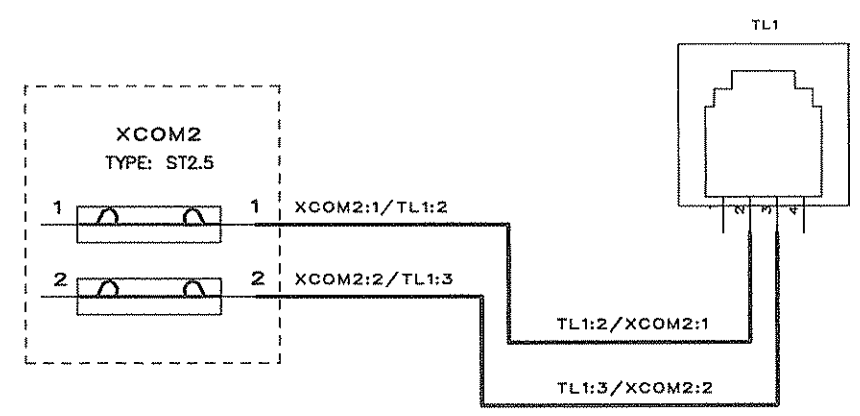
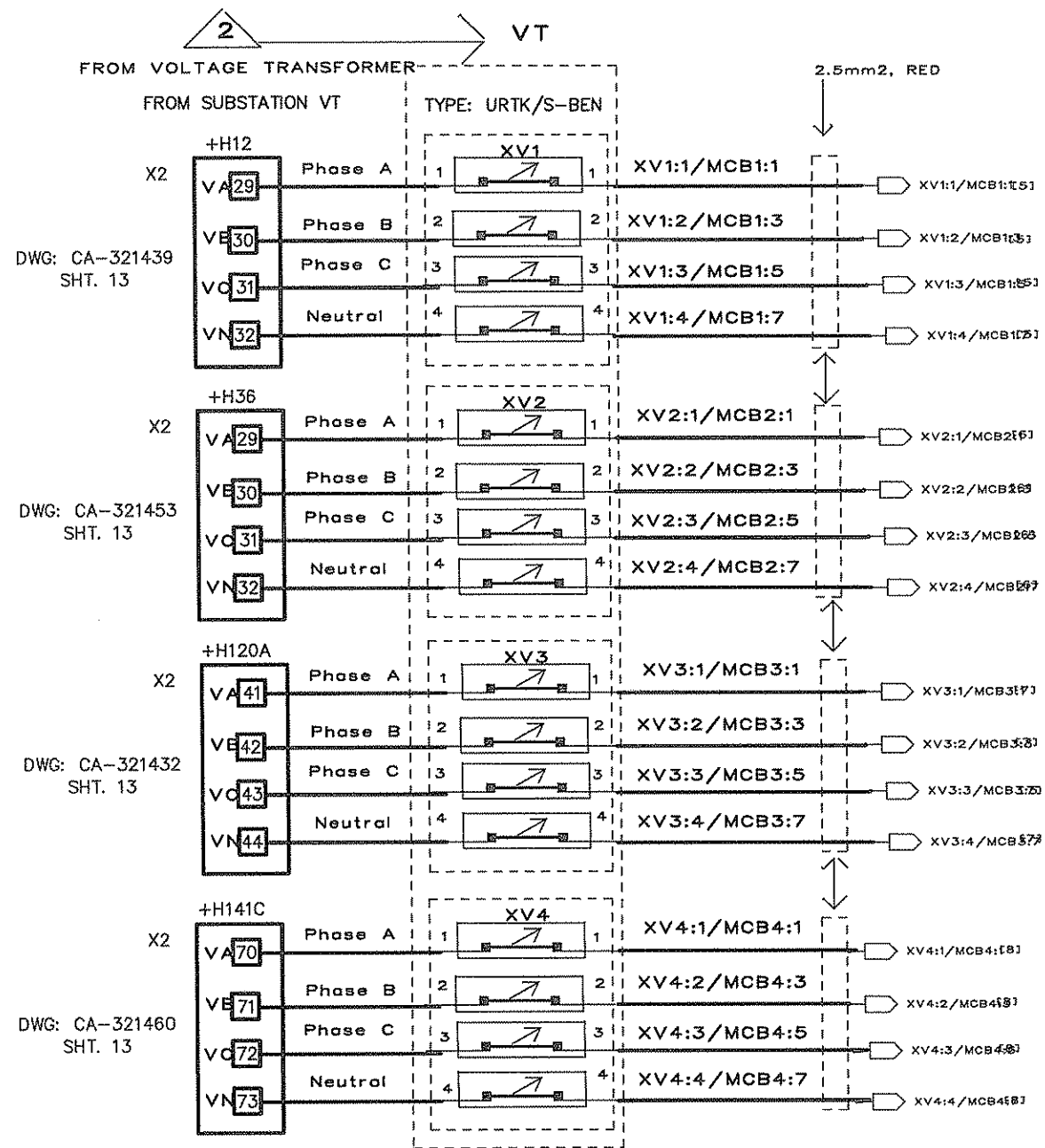


MANUFACTURER NAME	DRAWING NO.	SHEET NO.	REV. NO.
AEC	CD-320883	02 OF 11	01

THIS DRAWING AND THE INFORMATION CONTAINED HEREIN ARE THE SOLE PROPERTY OF SAUDI ELECTRICITY CO. NO REPRODUCTION IN FULL OR IN PART SHALL BE OBTAINED FROM THIS DOCUMENT WITHOUT THE WRITTEN CONSENT OF ITS OWNER.



JOB ORDER NO.	INDEX	PLANT NO.	DRAWING NUMBER	SHEET NO. REV.
11131113/00	P	C469	CD-320883	03 OF 11



NOTES

LEGEND

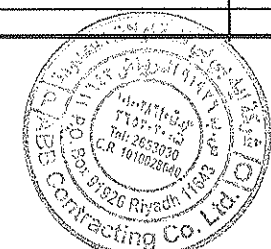
PSTN - PUBLIC SWITCHED TELEPHONE NETWORK

VT - VOLTAGE TRANSFORMER PT-SECONDARY

TL - TELEPHONE JACK

REFERENCE DRAWINGS

DRAWING TITLE	DRAWING NO.
DRAWING CONTROL SHEET	CD-293969



AS-BUILT BY _____ DATE _____

REV. NO.	DATE	BY	DESCRIPTION	CHKD.	CERT.	APPD.
1	13/07	MRA	DETAIL DESIGN	MRA	AS	
0	12/01	MRA	BASE DESIGN	MRA	AS	

الشركة السعودية للكهرباء
Saudi Electricity Company

DRAWN BY: MRA CHECKED BY: AS SCALE: NONE

DATE STARTED: _____ DATE COMPLETED: _____

OPR'G. DEPT.: _____ ENO. DEPT.: _____

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR FOR ORDERING MATERIAL UNTIL CERTIFIED AND DATED

APPROVAL/CERTIFICATION INFORMATION
DOC NO. E-123456 REV. NO. 00

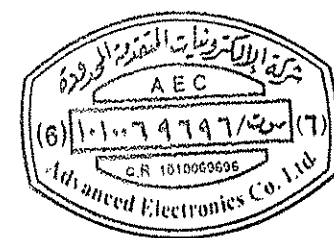
VT CONNECTIONS INSIDE PANEL

TELEPHONE LINE CONNECTIONS INSIDE PANEL

S/S 8182

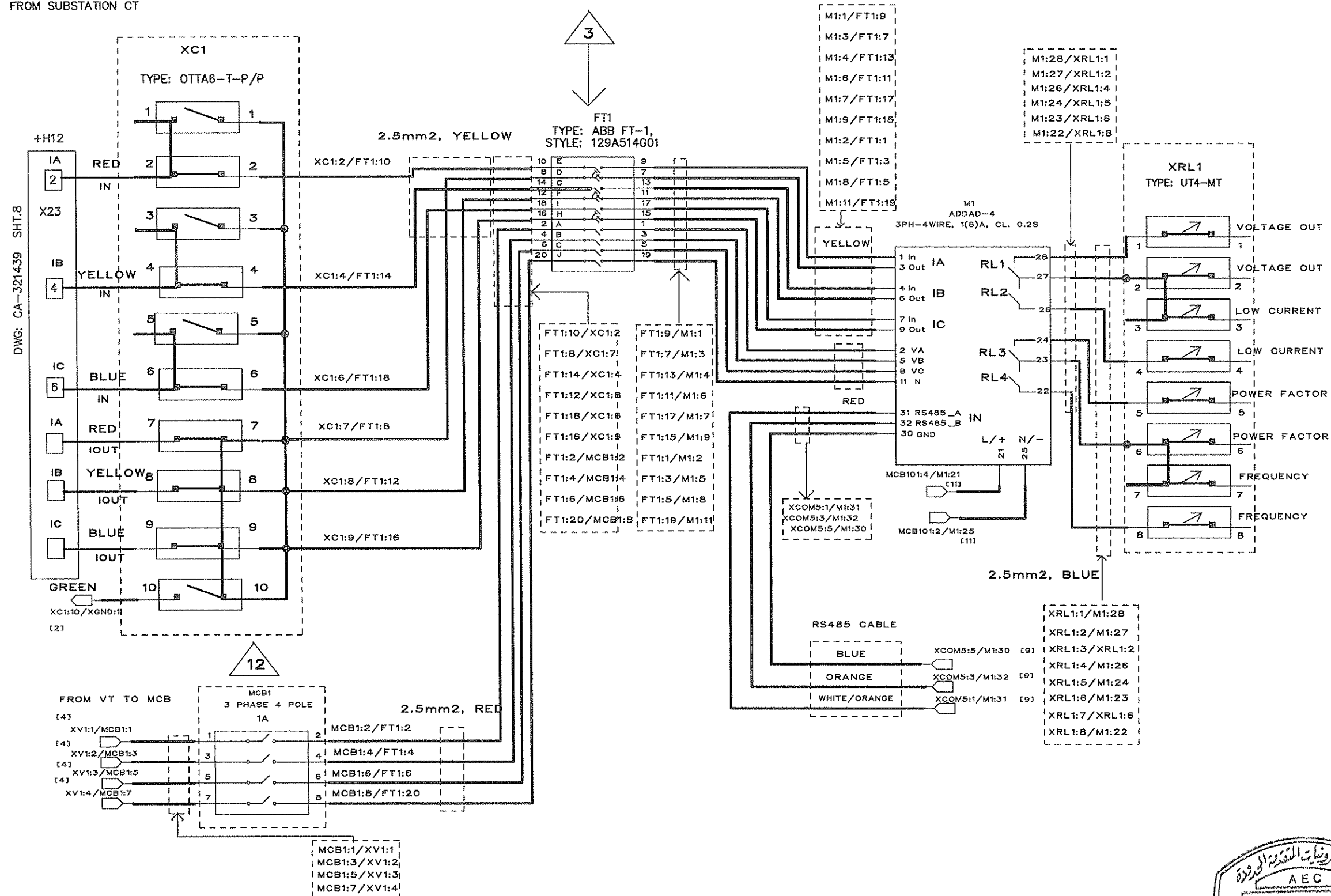
RIYADH SAUDI ARABIA

JOB ORDER NO.	INDEX	PLANT NO.	DRAWING NUMBER	SHEET NO.	REV. NO.
11131113/00	P	C469	CD-320883	04 OF 11	01



MANUFACTURER NAME
AEC
DRAWING NO.
CD-320883
SHEET NO.
04 OF 11
REV. NO.
01

FROM SUBSTATION CT



NOTES

LEGEND

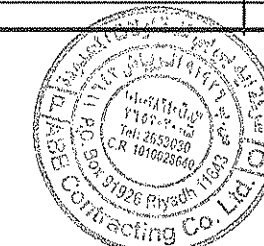
XC - CURRENT TRANSFORMER CT-
SECONDARY

FT - FLEXITYPE TEST SWITCH

M - REVENURE METER

XRL - O/P CONTACT FROM RELAY IN
REVENUE METER

REFERENCE DRAWINGS

[illegible]

ASSENT BY _____ DATE _____

1	13/07	MRA	DETAIL DESIGN		MRA	AS			
0	12/01	MRA	BASE DESIGN		MRA	AS			
REV.	DATE	BY	DESCRIPTION		CHKD.	CERT.	A		

الشركة السعودية للكهرباء
Saudi Electricity Company

DRAWN BY MRA CHECKED BY AS SCALE: NONE
DATE STARTED _____ DATE COMPLETED _____
OPR'G DEPT. _____ ENG. DEPT. _____

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR FOR ORDERING MATERIAL UNTIL CERTIFIED AND DATED	APPROVAL/CERTIFICATION INFORMATION DOC NO. <u>E-123456</u> REV NO. <u>00</u>
--	---

REVENUE METER CONNECTION INSIDE PANEL

S/S 8162

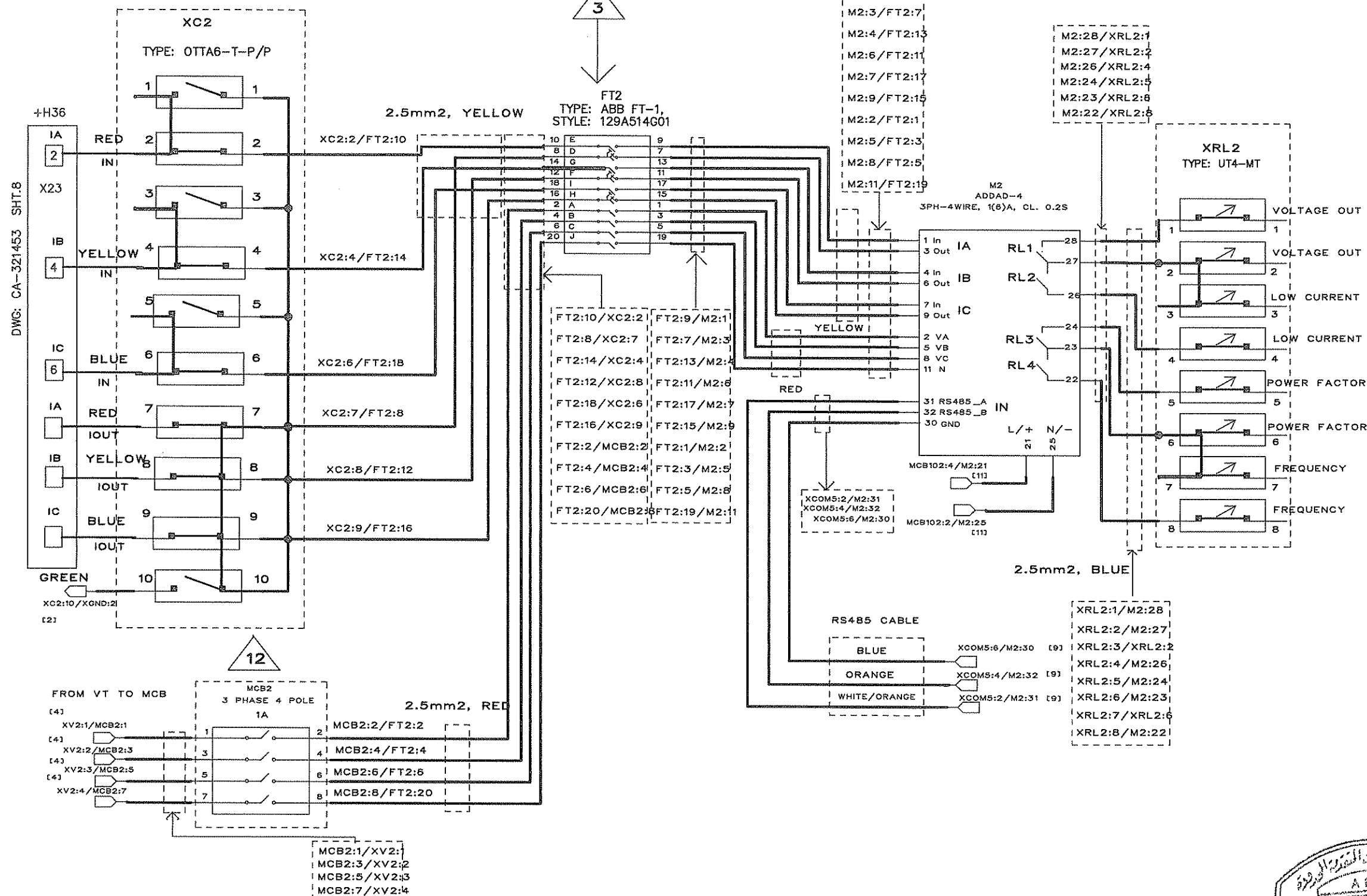
RIYADH	SAUDI ARAB
--------	------------

JOB ORDER NO.	INDEX	PLANT NO.	DRAWING NUMBER	SHEET NO.	REV.
11131113/00	P	C469	CD-320883	05 OF 11	

SEC CAD-A 12004/031
DMS VECTOR

ONE IN THE SAME CATEGORY AS SALIN ELEMENTS NO REPRODUCTION IN FULL OR IN PART SHALL BE OBTAINED FROM THIS DOCUMENT WITHOUT THE WRITTEN CONSENT OF ITS OWNER.

FROM SUBSTATION CT



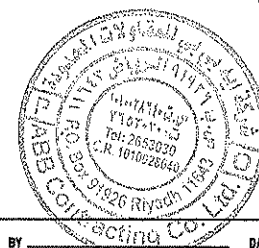
NOTES

LEGEND

XC - CURRENT TRANSFORMER CT-SECONDARY
FT - FLEXITYPE TEST SWITCH
M - REVENUE METER
XRL - O/P CONTACT FROM RELAY IN REVENUE METER

REFERENCE DRAWINGS

DRAWING TITLE	DRAWING NO.
DRAWING CONTROL SHEET	CD-293959



REV. NO.	DATE	BY	DESCRIPTION	CHKD.	CERT.	APPR.
1	13/07	MRA	DETAIL DESIGN	MRA	AS	
0	12/01	MRA	BASE DESIGN	MRA	AS	

الشركة السعودية للكهرباء
Saudi Electricity Company

DRAWN BY: MRA CHECKED BY: AS SCALE: NONE
DATE STARTED: DATE COMPLETED:
OPR'D. DEPT.: ENG. DEPT.:

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR FOR ORDERING MATERIAL UNTIL CERTIFIED AND DATED
APPROVAL/CERTIFICATION INFORMATION
DOC NO. E-123456 REV. NO. 00

REVENUE METER CONNECTION INSIDE PANEL

S/S 8162

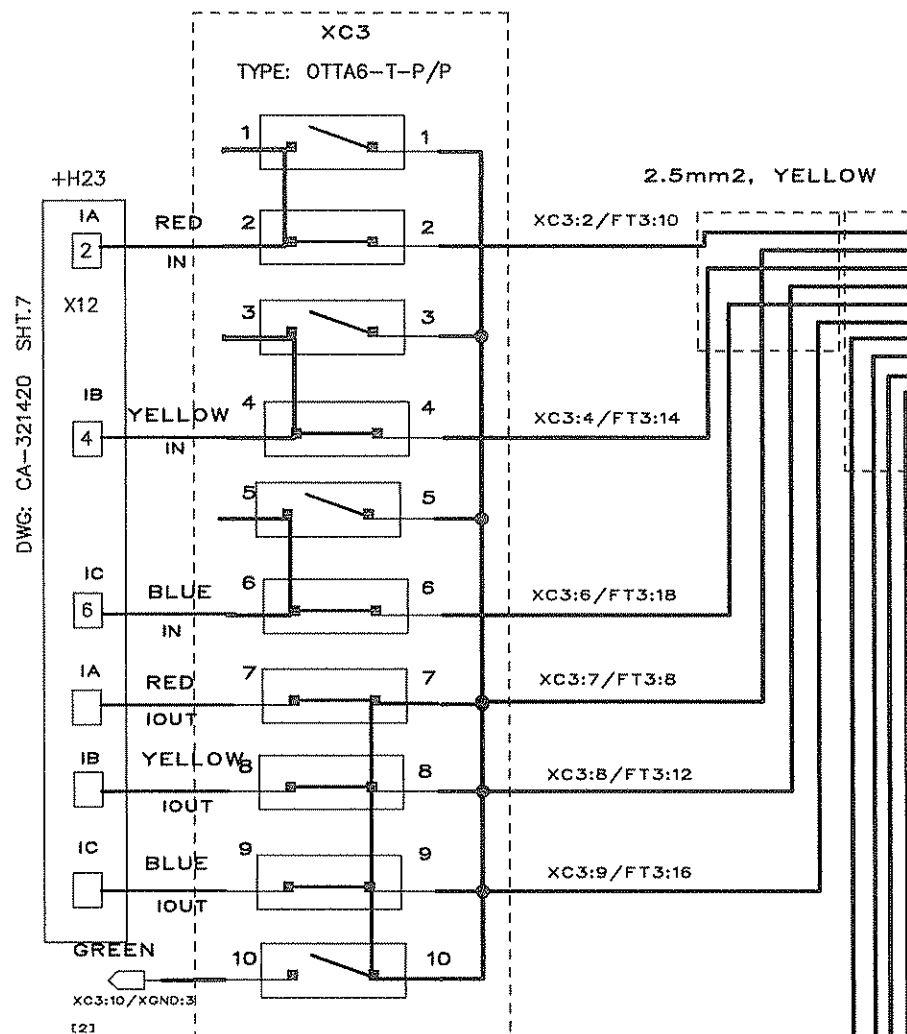
RIYADH SAUDI ARABIA

JOB ORDER NO.	INDEX	PLANT NO.	DRAWING NUMBER	SHEET NO.	REV. NO.
11131113/00	P	C469	CD-320883	06 OF 11	01

SEC CAD-A 12004/031
[DMS] [VECTOR]

MANUFACTURER NAME	DRAWING NO.	SHEET NO.	REV. NO.
AEC	CD-320883	06 OF 11	01

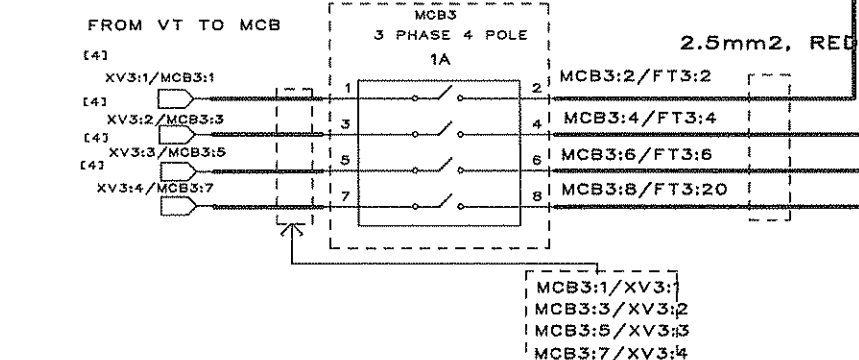
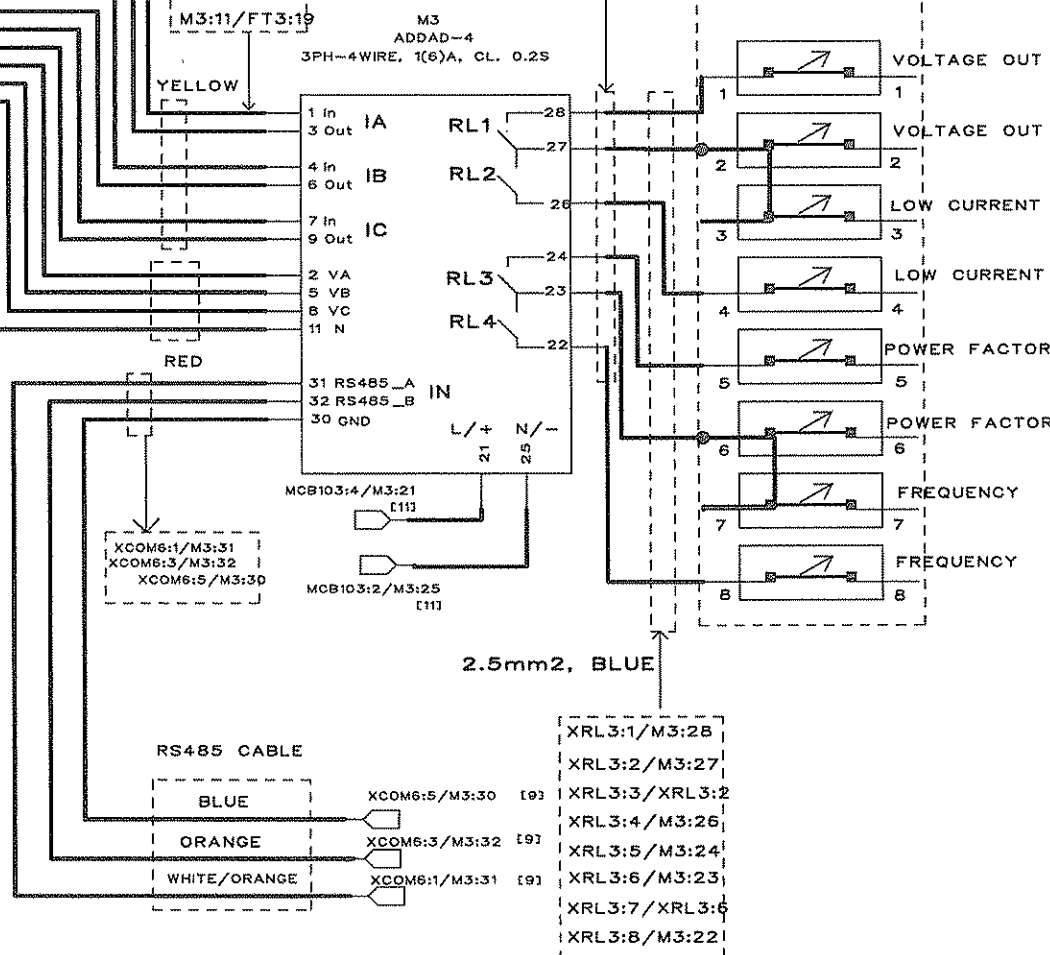
FROM SUBSTATION CT



3
FT3
TYPE: ABB FT-1,
STYLE: 129A514G01

M3:1/FT3:9
M3:3/FT3:7
M3:4/FT3:13
M3:6/FT3:11
M3:7/FT3:17
M3:9/FT3:15
M3:2/FT3:1
M3:5/FT3:3
M3:8/FT3:5
M3:11/FT3:19

M3:28/XRL3:1
M3:27/XRL3:2
M3:26/XRL3:4
M3:24/XRL3:5
M3:23/XRL3:6
M3:22/XRL3:8



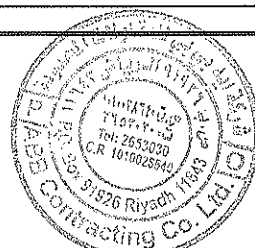
NOTES

LEGEND

XC - CURRENT TRANSFORMER CT-
SECONDARY
FT - FLEXITYPE TEST SWITCH
M - REVENUE METER
XRL - O/P CONTACT FROM RELAY IN
REVENUE METER

REFERENCE DRAWINGS

DRAWING TITLE	DRAWING NO.
DRAWING CONTROL SHEET	CD-293969



REV. NO.	DATE	BY	DESCRIPTION	CHKD.	CERT.	APPR.
1	13/07	MRA	DETAIL DESIGN	MRA	AS	
0	12/01	MRA	BASE DESIGN	MRA	AS	

الشركة السعودية للكهرباء
Saudi Electricity Company

DRAWN BY: MRA CHECKED BY: AS SCALE: NONE
DATE STARTED: DATE COMPLETED:
OPR'G. DEPT.: ENG. DEPT.:

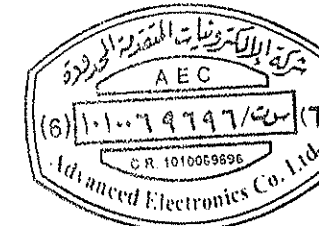
THIS DRAWING IS NOT TO BE USED FOR
CONSTRUCTION OR FOR ORDERING
MATERIAL UNTIL CERTIFIED AND DATED
APPROVAL/CERTIFICATION INFORMATION
DOC NO. E-123456 REV. NO. 00

REVENUE METER CONNECTION INSIDE PANEL

S/S 8162

RIYADH SAUDI ARABIA

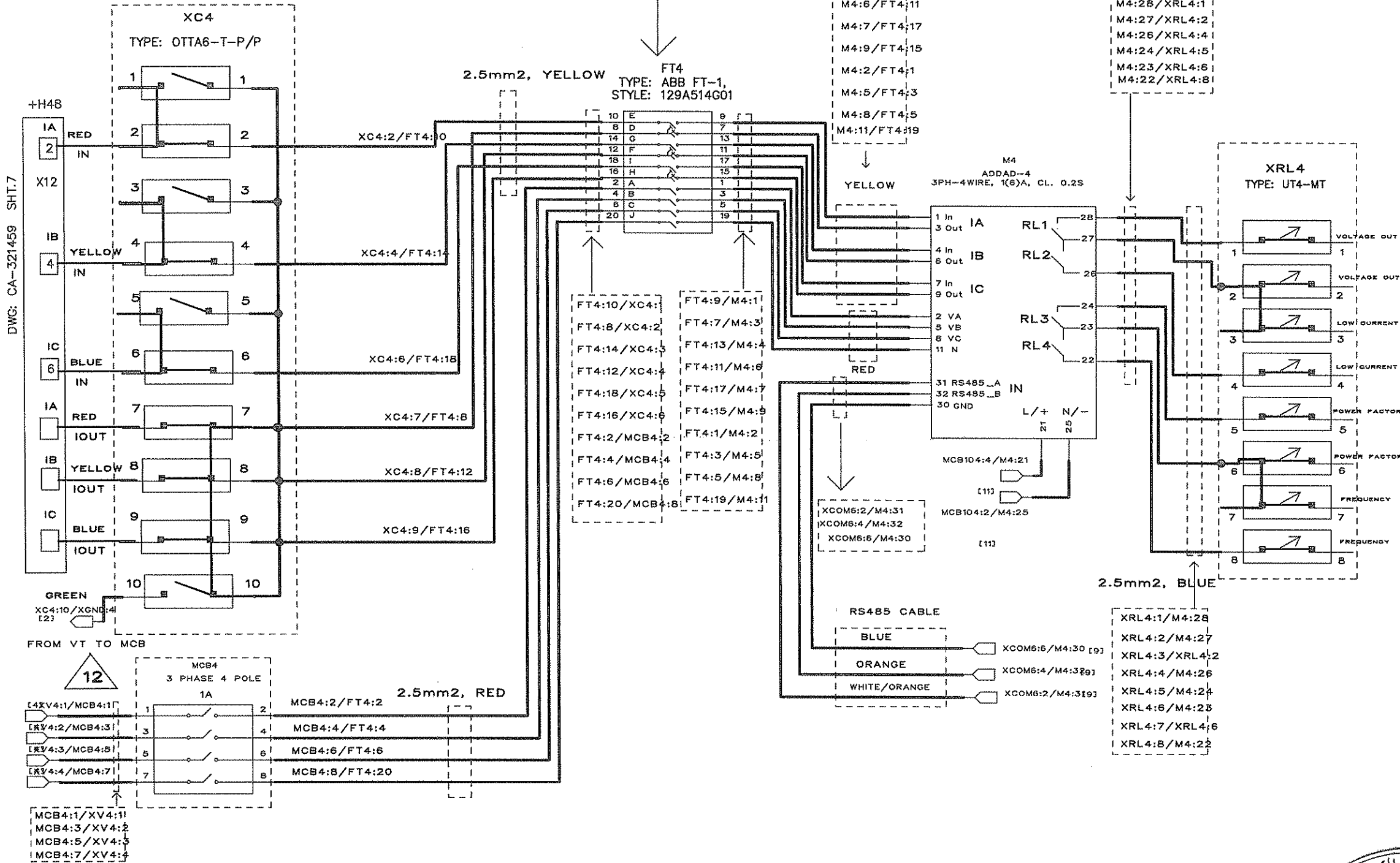
JOB ORDER NO.	INDEX	PLANT NO.	DRAWING NUMBER	SHEET NO.	REV. NO.
11131113/00	P	C469	CD-320883	07 OF 11	01



MANUFACTURER NAME	DRAWING NO.	SHEET NO.	REV. NO.
AEC	CD-320883	07 OF 11	01

THIS DRAWING AND THE INFORMATION CONTAINED HEREIN ARE THE SOLE PROPERTY OF SAUDI ELECTRICITY CO. NO REPRODUCTION IN FULL OR IN PART SHALL BE OBTAINED FROM THIS DOCUMENT WITHOUT THE WRITTEN CONSENT OF ITS OWNER.

FROM SUBSTATION CT



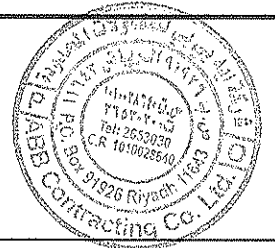
NOTES

LEGEND

XC - CURRENT TRANSFORMER CT-SECONDARY
FT - FLEXTYPE TEST SWITCH
M - REVENUE METER
XRL - O/P CONTACT FROM RELAY IN REVENUE METER

REFERENCE DRAWINGS

DRAWING TITLE	DRAWING NO.
DRAWING CONTROL SHEET	CD-293969



AS-BUILT BY _____ DATE _____

REV. NO.	DATE	BY	DESCRIPTION	CHKD.	CERT.	APPD.
1	13/07	MRA	DETAIL DESIGN	MRA	AS	
0	12/01	MRA	BASE DESIGN	MRA	AS	

الشركة السعودية للكهرباء
Saudi Electricity Company

DRAWN BY: MRA CHECKED BY: AS SCALE: NONE
DATE STARTED: _____ DATE COMPLETED: _____
DPT. DEPT.: _____ ENG. DEPT.: _____

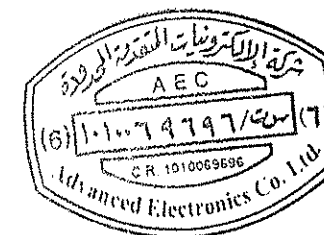
THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR FOR ORDERING MATERIAL UNTIL CERTIFIED AND DATED
APPROVAL/CERTIFICATION INFORMATION
DOC NO. E-123456 REV. NO. 00

REVENUE METER CONNECTION INSIDE PANEL

S/S 8162

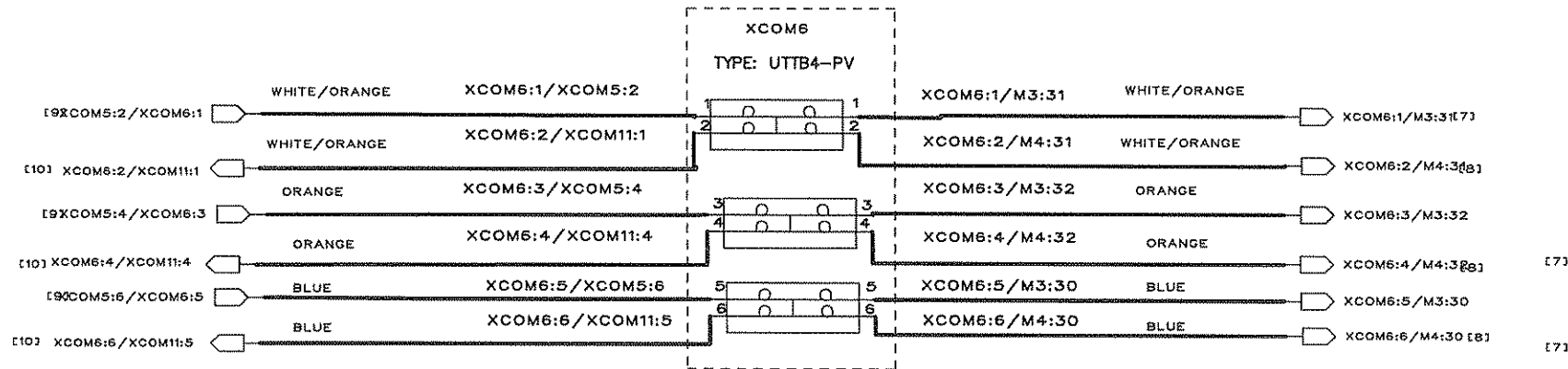
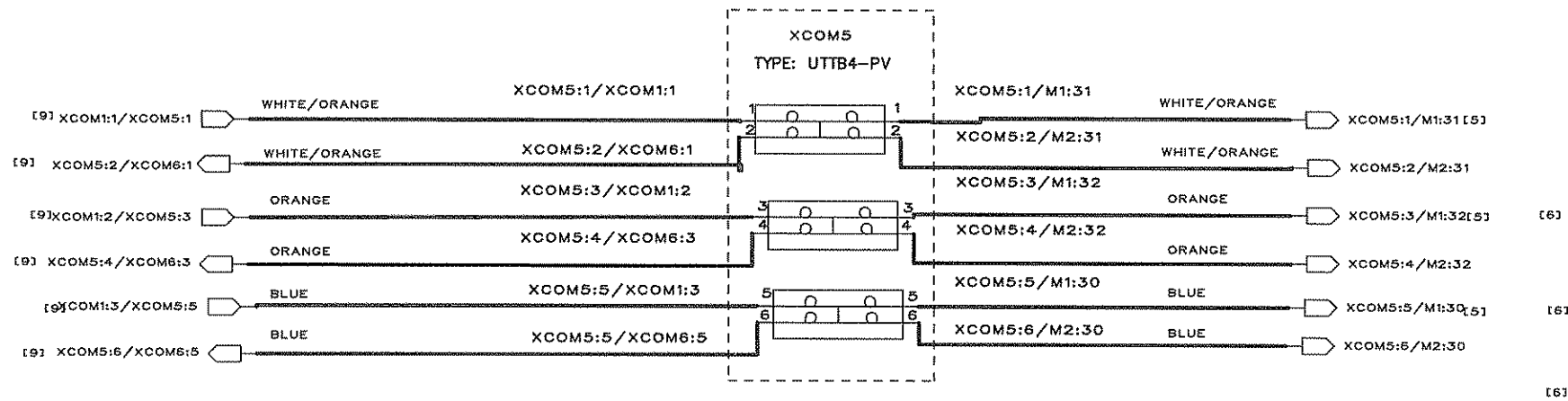
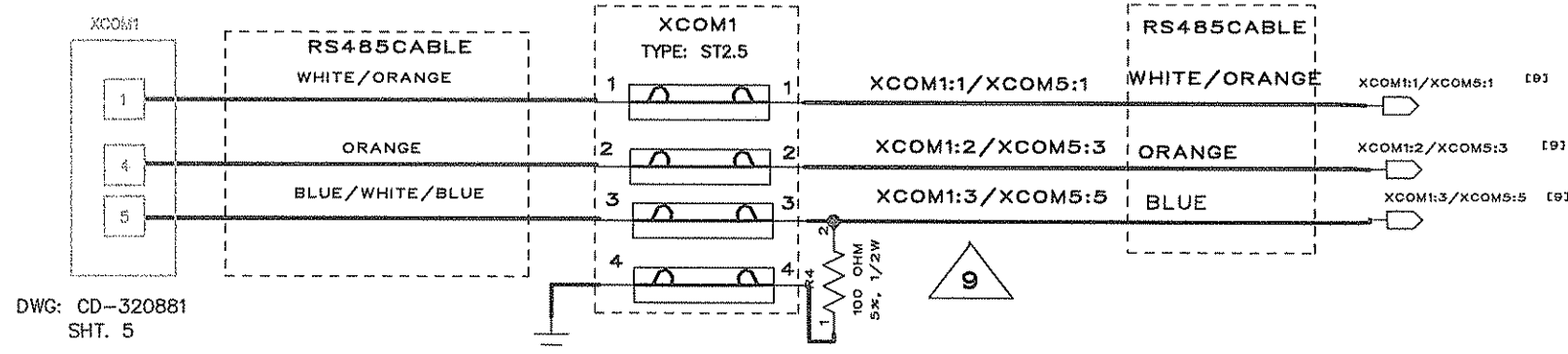
RIYADH SAUDI ARABIA

JOB ORDER NO.	INDEX	PLANT NO.	DRAWING NUMBER	SHEET NO.	REV. NO.
113113/00	P	C469	CD-320883	08 OF 11	01



MANUFACTURER NAME	DRAWING NO.	SHEET NO.	REV. NO.
AEC	CD-320883	08 OF 11	01

THIS DRAWING AND THE INFORMATION CONTAINED HEREIN ARE THE SOLE PROPERTY OF SAUDI ELECTRICITY CO. NO REPRODUCTION IN FULL OR IN PART SHALL BE OBTAINED FROM THIS DOCUMENT WITHOUT THE WRITTEN CONSENT OF ITS OWNER.

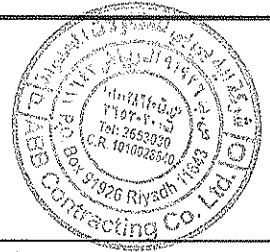


NOTES

LEGEND

REFERENCE DRAWINGS

DRAWING TITLE	DRAWING NO.
DRAWING CONTROL SHEET	CD-293989



AS-BUILT BY _____ DATE _____

REV. NO.	DATE	BY	DESCRIPTION	CHKD.	CERT.	APPD.
1	13/07	MRA	DETAIL DESIGN	MRA	AS	
0	12/01	MRA	BASE DESIGN	MRA	AS	

الشركة السعودية للكهرباء
Saudi Electricity Company

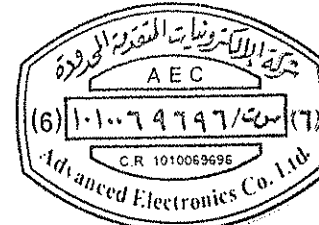
DRAWN BY: MRA CHECKED BY: AS SCALE: NONE
DATE STARTED: _____ DATE COMPLETED: _____
ORIG. DEPT.: _____ ENG. DEPT.: _____

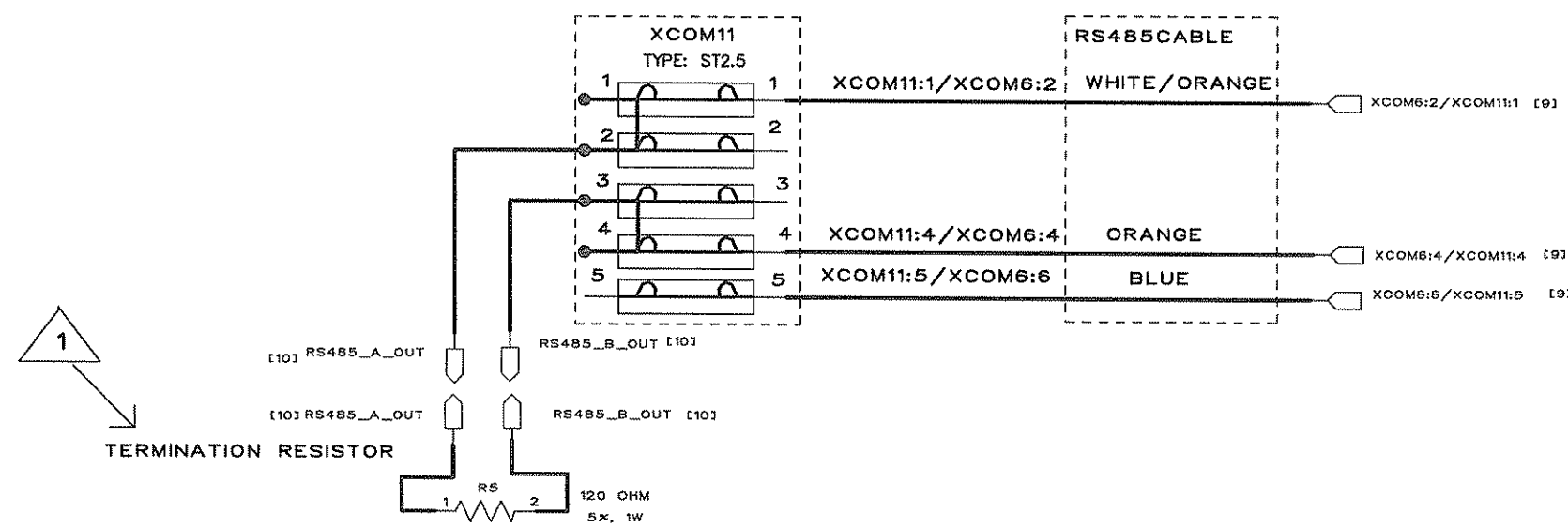
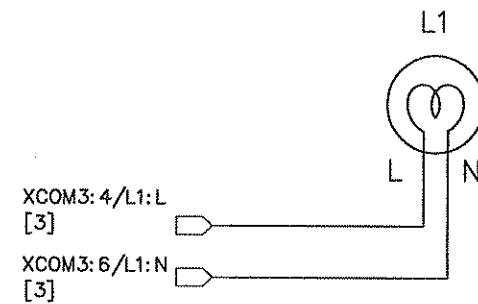
THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR FOR ORDERING MATERIAL UNTIL CERTIFIED AND DATED
APPROVAL/CERTIFICATION INFORMATION
DOC NO. E-123456 REV. NO. 00

COMMUNICATION CONNECTIONS INSIDE PANEL

S/S 8182

INDEX	PLANT NO.	DRAWING NUMBER	SHEET NO.	REV. NO.
P	C469	CD-320883	09 OF 11	01





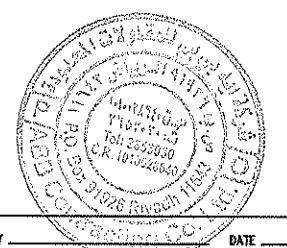
NOTES

LEGEND

L1- LAMP

REFERENCE DRAWINGS

DRAWING TITLE	DRAWING NO.
DRAWING CONTROL SHEET	CD-293969



REV. NO.	DATE	BY	DESCRIPTION	CHKD.	CERT.	APPR.
1	13/07	MRA	DETAIL DESIGN	MRA	AS	
0	12/01	MRA	BASE DESIGN	MRA	AS	

الشركة السعودية للكهرباء
Saudi Electricity Company

DRAWN BY: MRA CHECKED BY: AS SCALE: NONE
DATE STARTED: DATE COMPLETED:
OPRG. DEPT.: ENG. DEPT.:

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OR FOR ORDERING MATERIAL UNTIL CERTIFIED AND DATED
APPROVAL/CERTIFICATION INFORMATION
DOC NO. E-123456 REV. NO. 00

COMMUNICATION CONNECTIONS INSIDE PANEL

S/S 8162

RIYADH SAUDI ARABIA

JOB ORDER NO.	INDEX	PLANT NO.	DRAWING NUMBER	SHEET NO. REV. NO.
11131113/00	P	C469	CD-320883	10 OF 11 01

MANUFACTURER NAME		
AEC		
DRAWING NO.	SHEET NO.	REV NO.
CD-320883	10 OF 11	01

